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Music in Medicine: Enhancing Emotion Recognition in Medical Students

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Previous studies have shown that visual art courses for medical students have improved their diagnostic skills. A music course in a similar fashion may enhance their ability to recognize patient emotion in the patient's voice. Identifying patient emotion via auditory cues allows future physicians to appropriately respond to patients' mental states and provide empathetic care. This study proposes that medical students who complete a course in recognizing emotional cues in music will outperform a control group in correctly identifying emotion in the human voice.

Participants were randomly divided into control and experimental groups, in which only the latter completed a lesson in recognizing varying emotional styles in a musical passage. After completion of the music course by the experimental group, both groups were asked to match the emotions "happy," "sad," "angry," "hesitant," and "curious" to recordings of the human voice with those emotional inflections. The latter two were considered to be the more challenging emotions to identify. Each group's scores were compared using an independent t-test.

The experimental group mean score was 0.84, which was significantly higher compared to that of the control group, 0.34 ($P<.05$). Additionally, the control group was more likely

to incorrectly identify the voice recordings with the inflections “hesitant” and “curious,” considered to be more challenging than the remaining three emotions.

These results corroborated the hypothesis that students receiving a primer course in recognizing emotional cues in music would be better prepared to identify emotion in human voice. The results also imply that the music course may aid students in identifying more complex emotions that may not be explicit in a patient’s tone of voice. Medical students who are aware of their patients’ emotional state without being explicitly told may be able to foster a greater degree of doctor-patient trust via their heightened sense of empathy.